7. General Error Function

1. An occurrence of an Error will make a sound of error melody for 5sec and continuously show one of the Error Displays from the following errors. (But, Fault Check Led will flash for 0.5sec.)
2. All of the steering parts will be off at that time until that error was released.

3. Water Supply Error

- If there is no higher change in water frequency than 100Hz for 2 minutes during the initial time of water supply and if water level doesn't reach the preset level in 20 minutes, this error will occur.
  This error will be released using Start/Pause button, which performs the initial condition of operation.
- Display : **"4E"**

4. Water Drain Error

- If water level frequency is still lower than the reset level frequency (24.50kHz) in 10 minutes after starting of water drain, this error will occur.
  This error will be released using Start/Pause button, which performs the initial condition of operation.
- Display : **"5E"**

5. Over Flow Error

- If an abnormal water level frequency is sensed (for occurrence of Over Flow :20.50kHz), Auto Power Off may release this error and continuously progress water drain until the frequency reached 24.50kHz.
- If Over Flow is also sensed even after the following check of water level frequency indicating that error, it functions to progress water drain.
- Display **: "OE"**

6. Door Open Error

- This error will be released by opening Door.
- Display : **"dE"** in 2-digit, **"door"** in 4-digit

7. Unbalance Error

- This error will be released by turning off Power S/W, which performs the initial condition of Power-On.
- DISPLAY : " **UE"**

8. Water Heater Error

- This error will be released by turning off Power S/W.
- Display : " **HE"(Over Heat),**
- Display **: "6E", indicating no operation of HE.**

9. Pressure S/W (Single Part Trouble) Error

※ Frequency signals(kHz) generated by water level S/W

Water Level	Low	High
Abnormal Frequency	30.00 KHz	15.00 KHz

- If the above frequency signals are displayed longer than 5sec, it indicates Pressure S/W Error.
- Drain water for 3 minutes for that Error, and turn OFF water drain pump. Pressure S/W Error display " **IE**" will be shown. .

10. Abnormal Water Temperature ERROR

- Water drain begins if abnormal water temperature is sensed at the initial time of water supply. If the frequency higher than 25.24KHz is sensed, water will be drained by force.
- Display **: "CE"**
- This error will be released by turning off Power S/W.

7. General Error Function

11. Natural Drain/Water Leak Error

- If more than 4 times of water supply and safe water level of Heater are sensed for each course, this error will occur.
- Display : "**LE**
- This error will be released by turning off Power S/W.

12. Tacho Error

- If Motor Tacho is abnormal, this error will occur.
- If Tacho signals are inputted less than 2 for 2sec after Motor started, this error will occur.
- Display : "**3E"**
- This error will be released by turning off Power S/W.

13. Motor TRIAC Short Error

- If Tacho signals are inputted more than 300 every 1sec in the operational interval less than 90RPM, this error will occur.
  Turn off Power S/W at that time.
- Display **: "bE**"
- This error will be released by turning off Power S/W.

14. Thermistor Abnormal Error

- If Thermistor circuit is abnormal, this error will occur.
- If Thermistor is lower than 0.2V or higher than 4.5V, this error will occur.
- Display **:"tE"**
- This error will be released by turning off Power S/W.

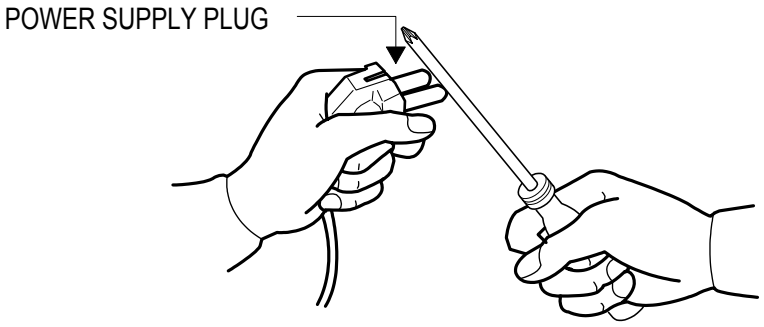
8. Trouble Diagnosis

- As the micom wash machine is configured of the complicate structure, there might be the service call. Below information is prepared for exact trouble diagnosis and suitable repair guide.

Caution for the Repair and Replacement

Please follow below instruction for the trouble diagnosis and parts replacement.

1) As some electronic components are damaged by the charged static electricity from the resin part of wash machine or the human body, prepare the human body earth or remove the potential difference of the human body and wash machine by contacting the power supply plug when the work contacting to PCB is executed.



2) Since AC220~240V is applied to the triac T1 and T2 on P.C.B, the electric shock may occur by touching and be careful that the strong and weak electricity are mixed.

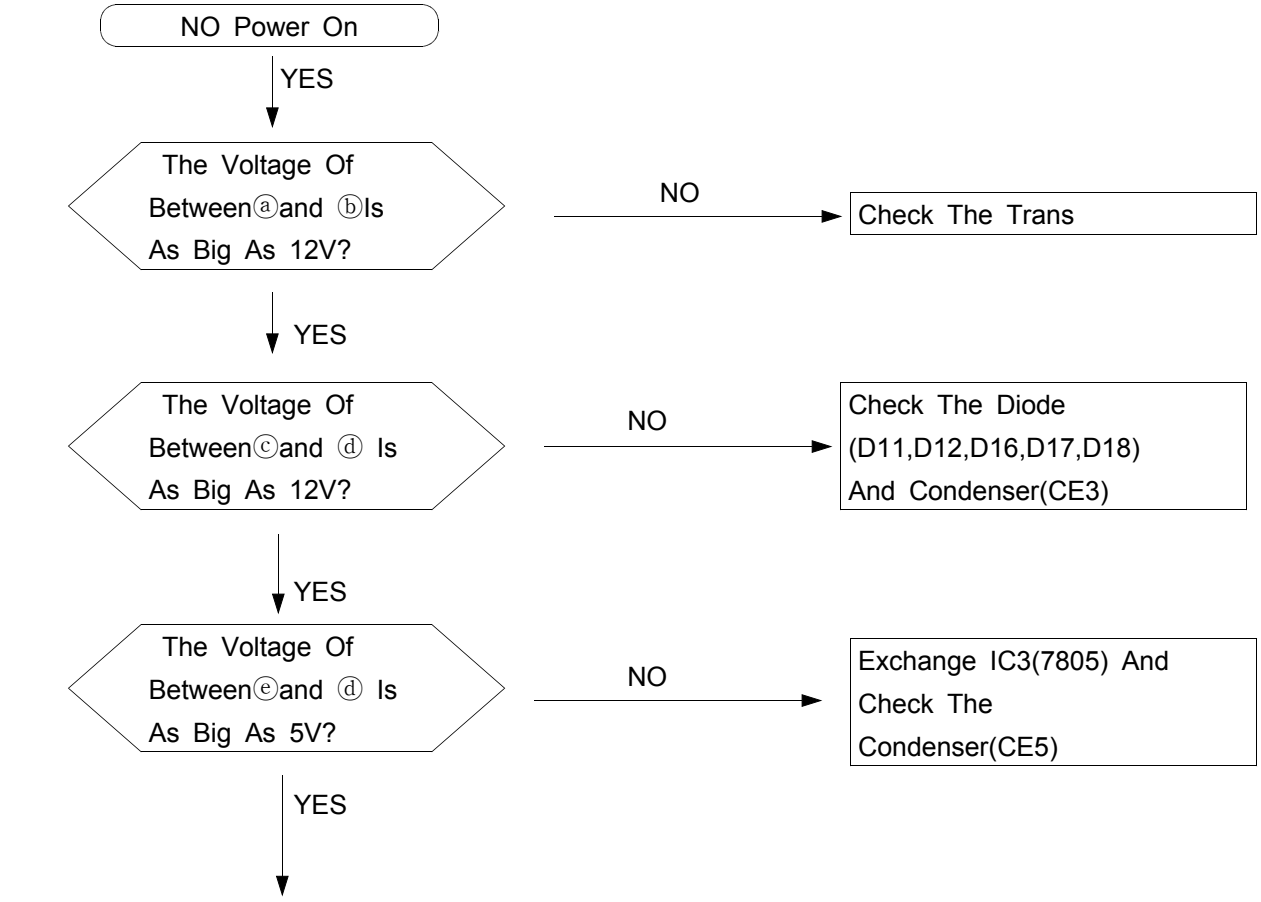
3) As the P.C.B assembly is designed for no trouble, do not replace the P.C.B assembly by the wrong diagnosis and follow the procedure of the trouble diagnosis when the micom is not operated normally.

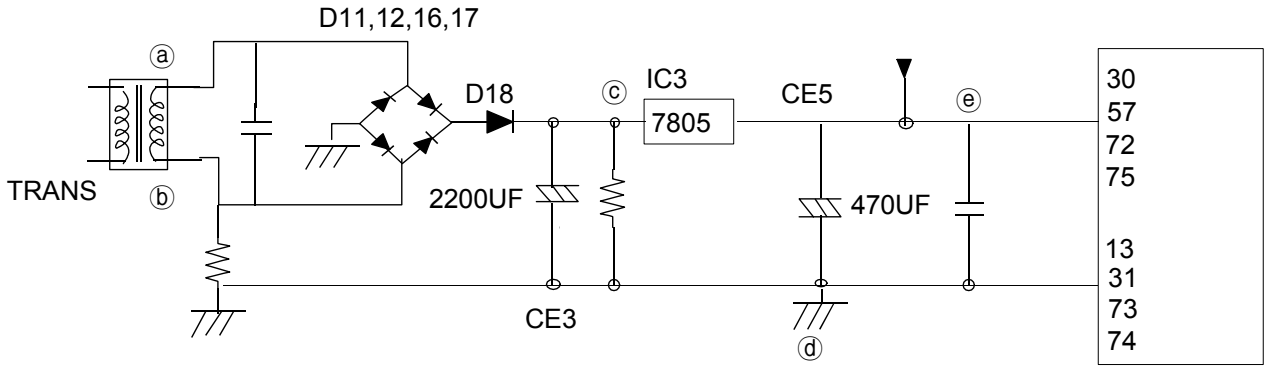
8-1. Trouble Diagnosis

No	Item	Cause and treatment
1	The power is not supplied	- Is the PCB connector connected well? - Is the voltage normal? - Is the power supply plug connected well? - Is the noise filter connected well? - Is the secondary output of the power supply transformation normal? - Is the fuse disconnected? (option) • If above points are not found, the PCB assembly is out of order. Replace it.
2	The water is not supplied.	- Is the knob open? - Did you push START/PAUSE button after selecting the course? - Is the water supply valve connected well? - Is the winding of the water supply valve continuous? - Is the connection and operation of the pressure switch normal? • If above points are not found, the PCB assembly is out of order. Replace it.
3	The wash does not start though the water supply is stopped.	- Is the connection and operation of the pressure switch normal? - Is the pressure switch hose damaged so that the air is leaked? - Is the pressure switch hose bent? - Check the operation of the water level switch. • If above points are not found, the PCB assembly is out of order. Replace it.
4	The drum does not rotate during washing.	- Is the belt connected well? - Is the winding of the motor continuous? (Rotor winding, stator winding, generator) - Is the motor protector normal? • If above points are not found, the PCB assembly is out of order. Replace it.
5	The drum rotates by one direction during washing. (The drum rotates to one direction for SPIN.)	- The PCB assembly is out of order. Replace it. (Inversion relay open trouble)
6	Drainage problem.	- Is the drainage hose bent? - Is the winding of the drainage pump continuous? - Is the drain filter clogged by the waste? • If above points are not found, the PCB assembly is out of order. Replace it.
7	Dehydration problem.	- The unbalance is detected. - Put in the laundry uniformly and start again.
8	Abnormal noise during SPIN.	- Is the pulley nut loosen? - Is the transport safety device removed? - Is the product installed on the level and stable place? (Little noise may be generated during the high-speed SPIN.)
9	Leak breaker or current/leak breaker is down during washing.	<When the leak breaker and current breaker is installed separately> - When the leak breaker is down, check and make the earth of the outlet. - When the current is down, the current is leaked. <Is the breaker down when the leak/current breaker is combined?> - Check the rated capacity of the current and leak breaker. The current breaker may be down due to the lack of the current when the wash machine and other apparatus are used. In this case, execute the cold water wash to check whether the current capacity is lack.
10	The heating is not executed.	- Is the wash heater terminal unplugged? - Is the wash heater normal? - If above points are not found, the PCB assembly is out of order. Replace it.

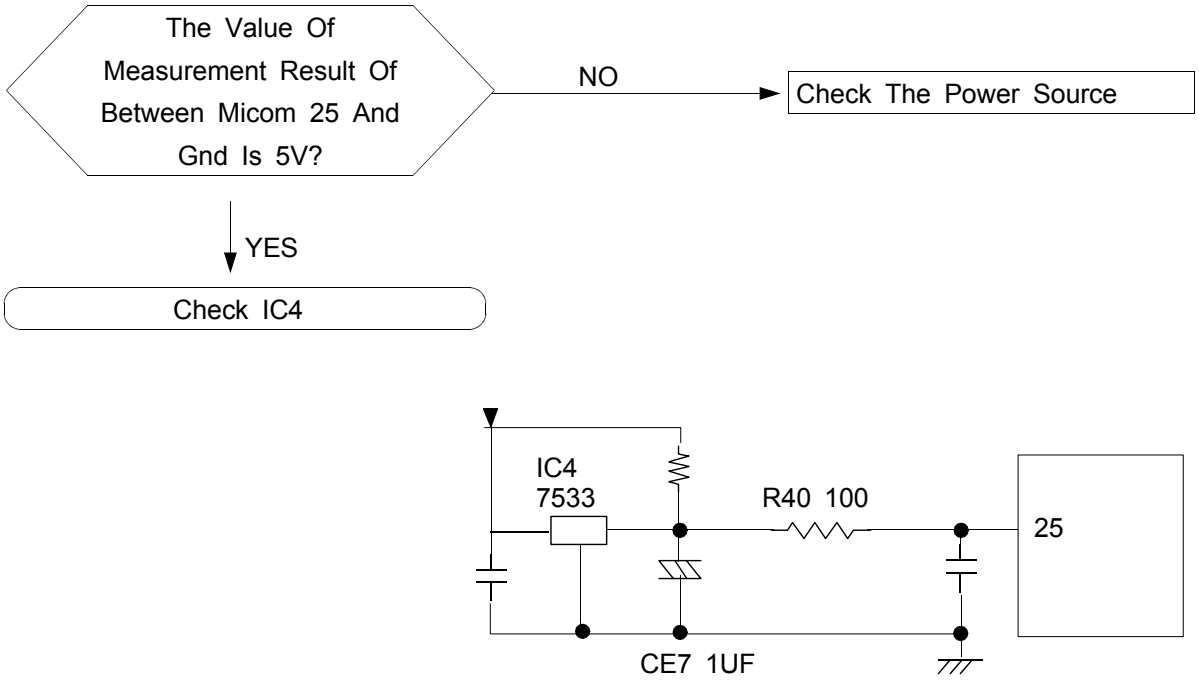
8-2 . Problem Checking And Method Of PCB

8-2-1 The Part Of Power Source

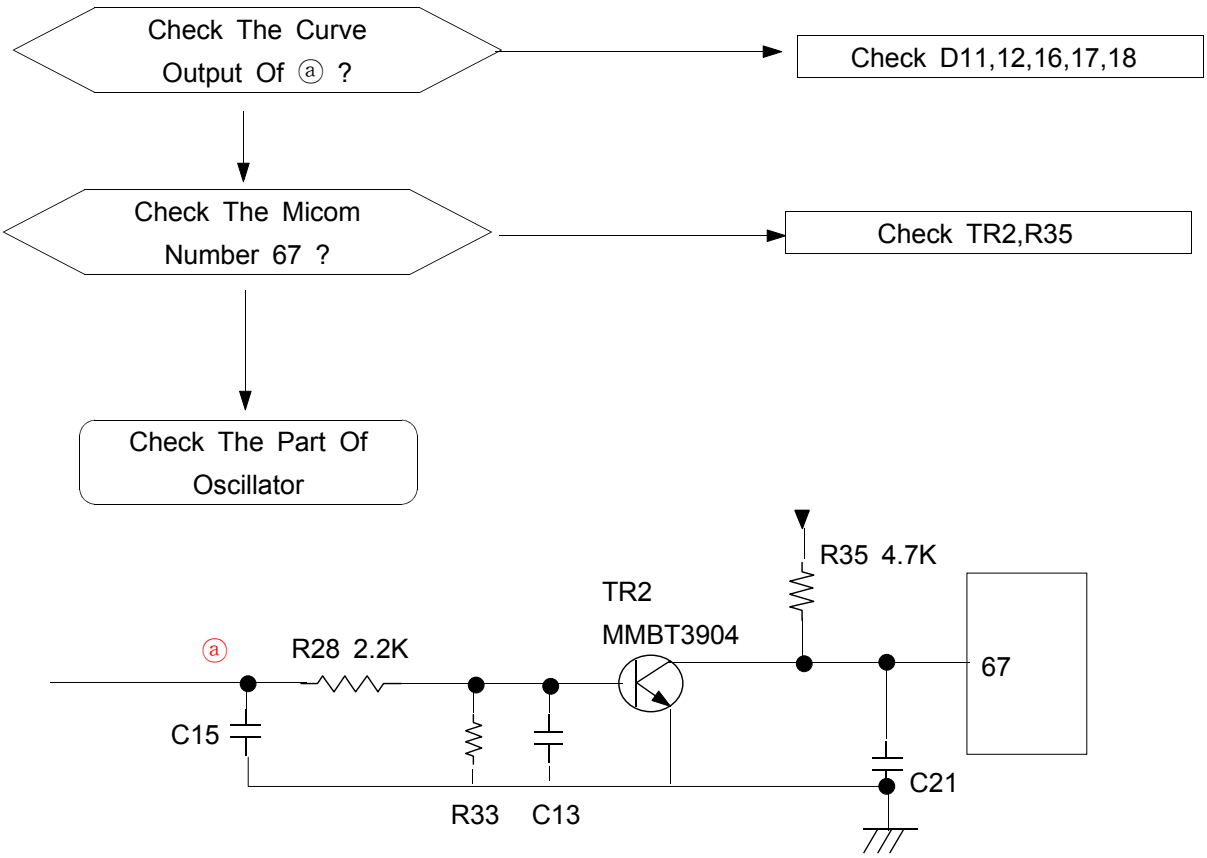

NO Power On
YES
The Voltage Of Between ⓐ and ⓑ Is As Big As 12V?
NO
Check The Trans
YES
The Voltage Of Between ⓒ and ⓓ Is As Big As 12V?
NO
Check The Diode (D11,D12,D16,D17,D18) And Condenser(CE3)
YES
The Voltage Of Between ⓔ and ⓓ Is As Big As 5V?
NO
Exchange IC3(7805) And Check The Condenser(CE5)
YES



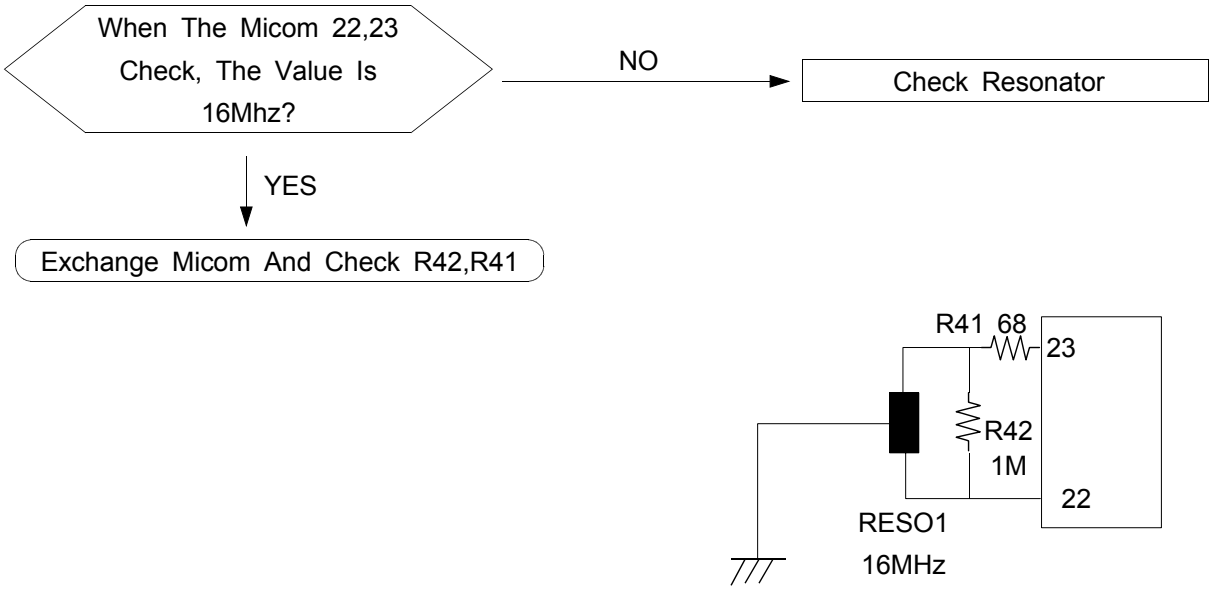
8-2-2. Reset Part



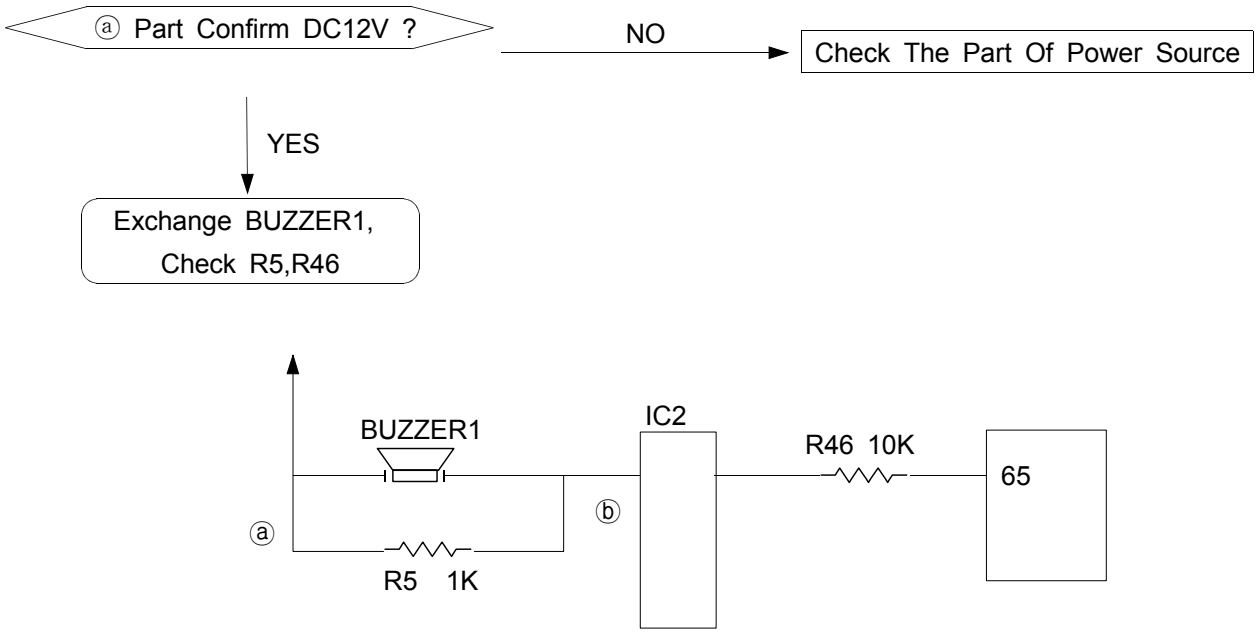
8-2-3. Interrupt Part



8-2-4. Checking The Part Of An Oscillator



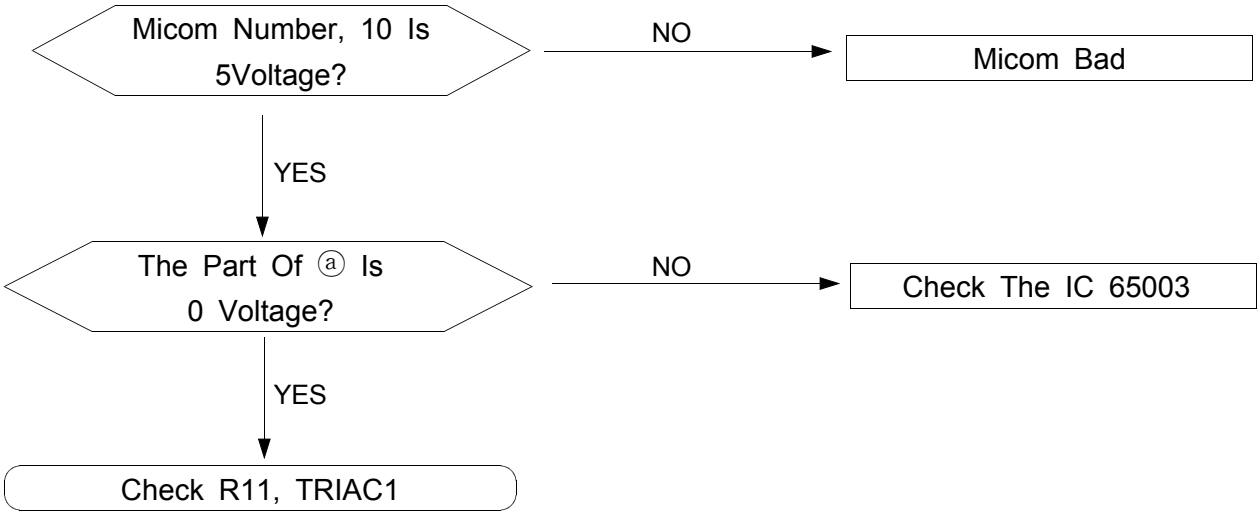
8-2-5. Check The Part Of Buzzer

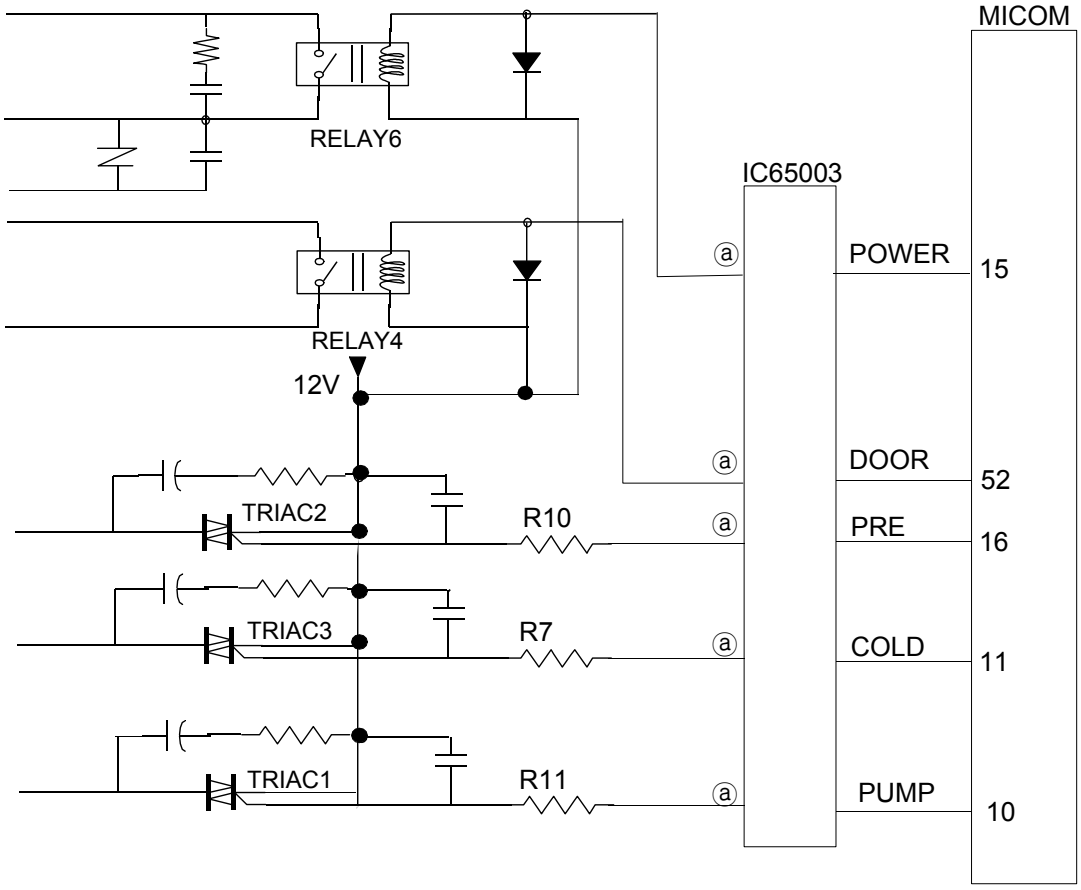


8-2-6. Driving Part Checking

◆ **Confirm The Output Of DC5V, When The Every Part Of Micom Number Check, According To The Some Problem Condition**

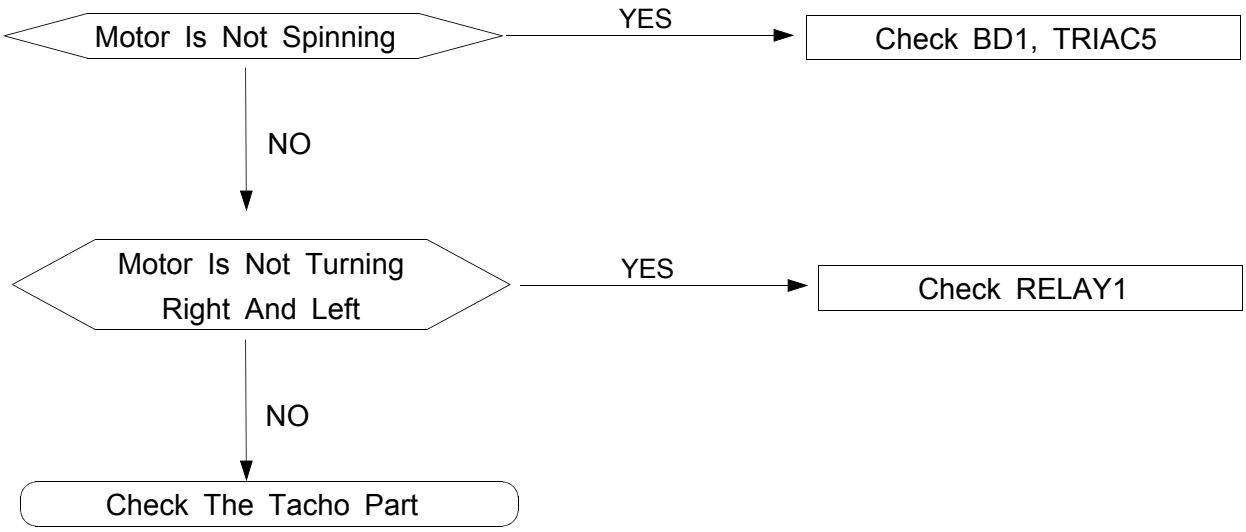
ex) When The Drain Is Not Operating But Pump Motor Is Operating, Check The 5Voltage Of Micom

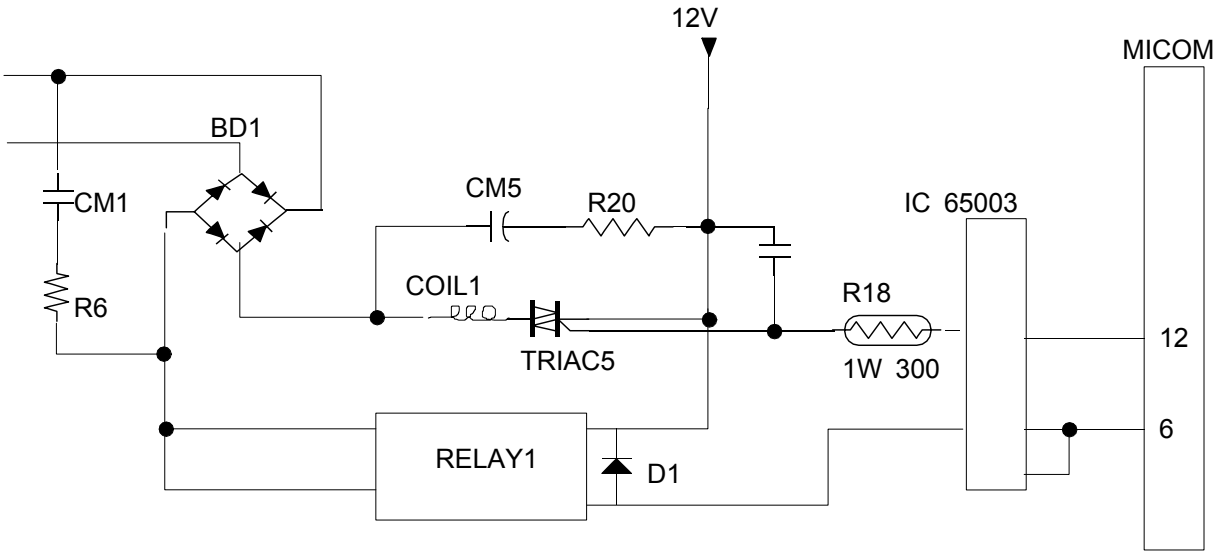




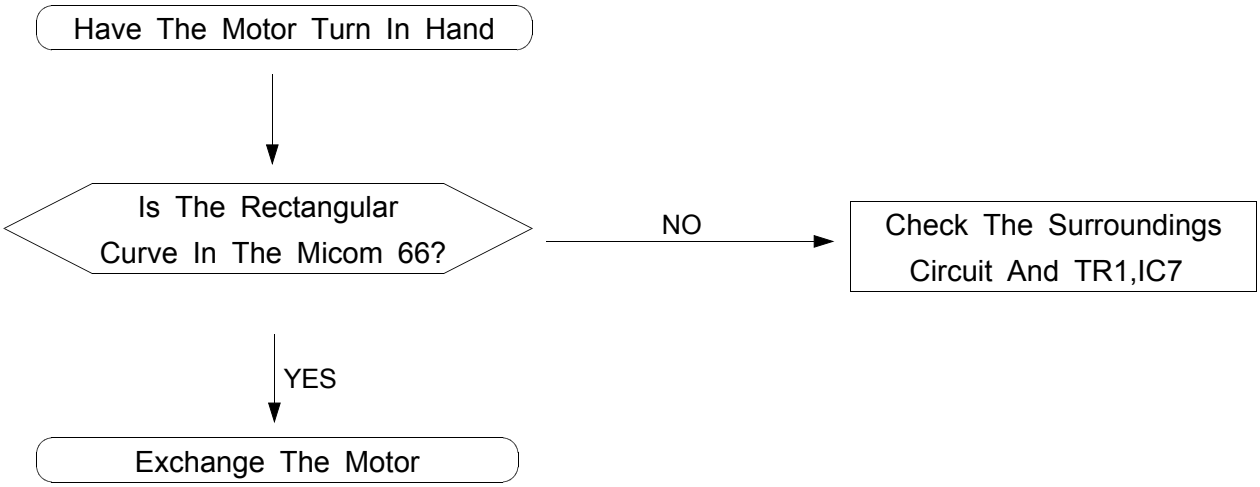
※ Check The Micom 18th In The Above Method When The Cold Water Is Bad

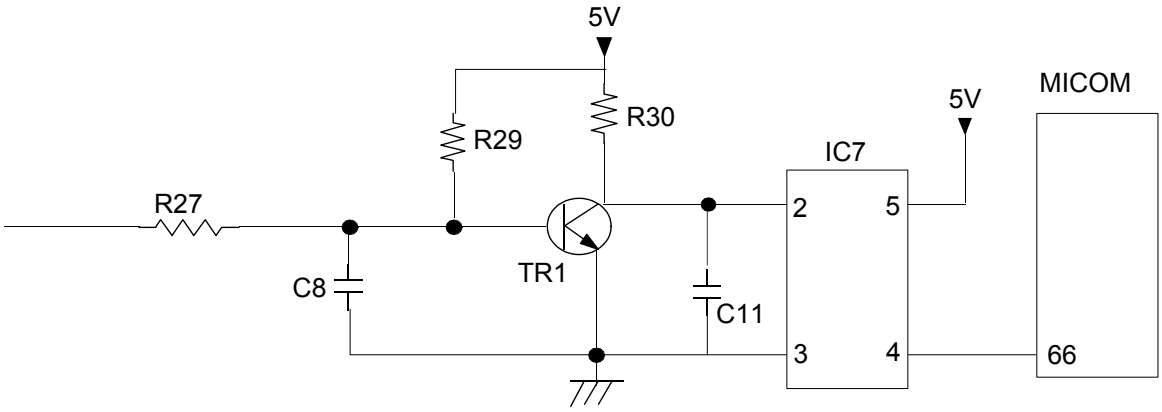
8-2-7. Confirm The Driving Part Of Motor



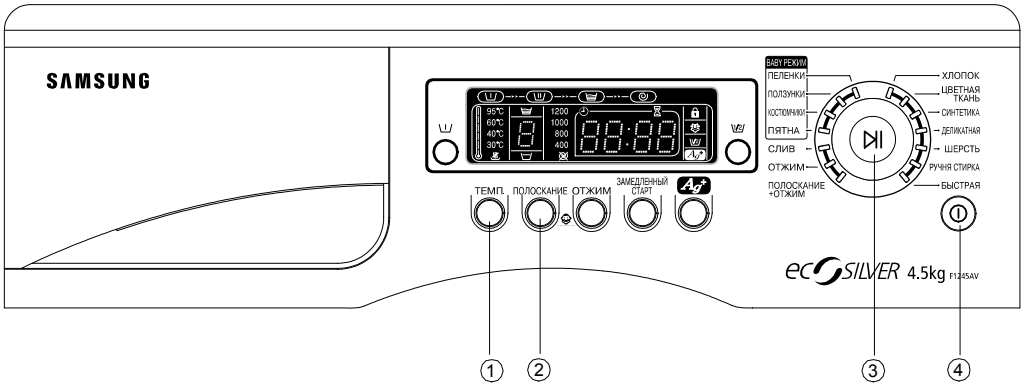


8-2-8. Checking The Tacho Part


Have The Motor Turn In Hand
Is The Rectangular Curve In The Micom 66?
NO
Check The Surroundings Circuit And TR1,IC7
YES
Exchange The Motor



9. Test Mode



1. Driving Compartment Test Mode

A. Hold down " 1" and " 2" keys simultaneously and then press POWER S/W " 4" on.
(Whole lamps turn on and display show " t1" after 3 Seconds.)

B. The driving compartment can be tested when you press " 3" key right after entering into the initial stage of the TEST MODE.

• Driving Compartment Test

Pre-wash VALVE ON(0.3sec) → OFF(0.3sec) → COLD VALVE ON(0.3sec) → [OFF(0.3sec) → HOT VALVE ON (0.3sec) : ***OPTION***] → OFF(0.3sec) → Rinse VALVE ON(0.3sec) → OFF(0.3sec) → Pump MOTOR ON(0.3sec) → OFF(0.3sec) → MOTOR Left (0.5sec) → OFF(0.5 sec) → MOTOR Right (0.5sec) → OFF(0.3sec) → HEATER RELAY ON(0.3sec) → OFF(0.3sec) → DOOR OPEN (Function continues when door is closed)

2. THERMISTOR TEST MODE

A. Hold down " 1" and " 2" keys simultaneously and then press POWER S/W " 4" on.
(Whole lamps turn on and display show " t1" after 3 Seconds.)

B. Press the " 1" key and display shows " t2"

C. Press the " 3" key and display shows the inside temperature of tub.